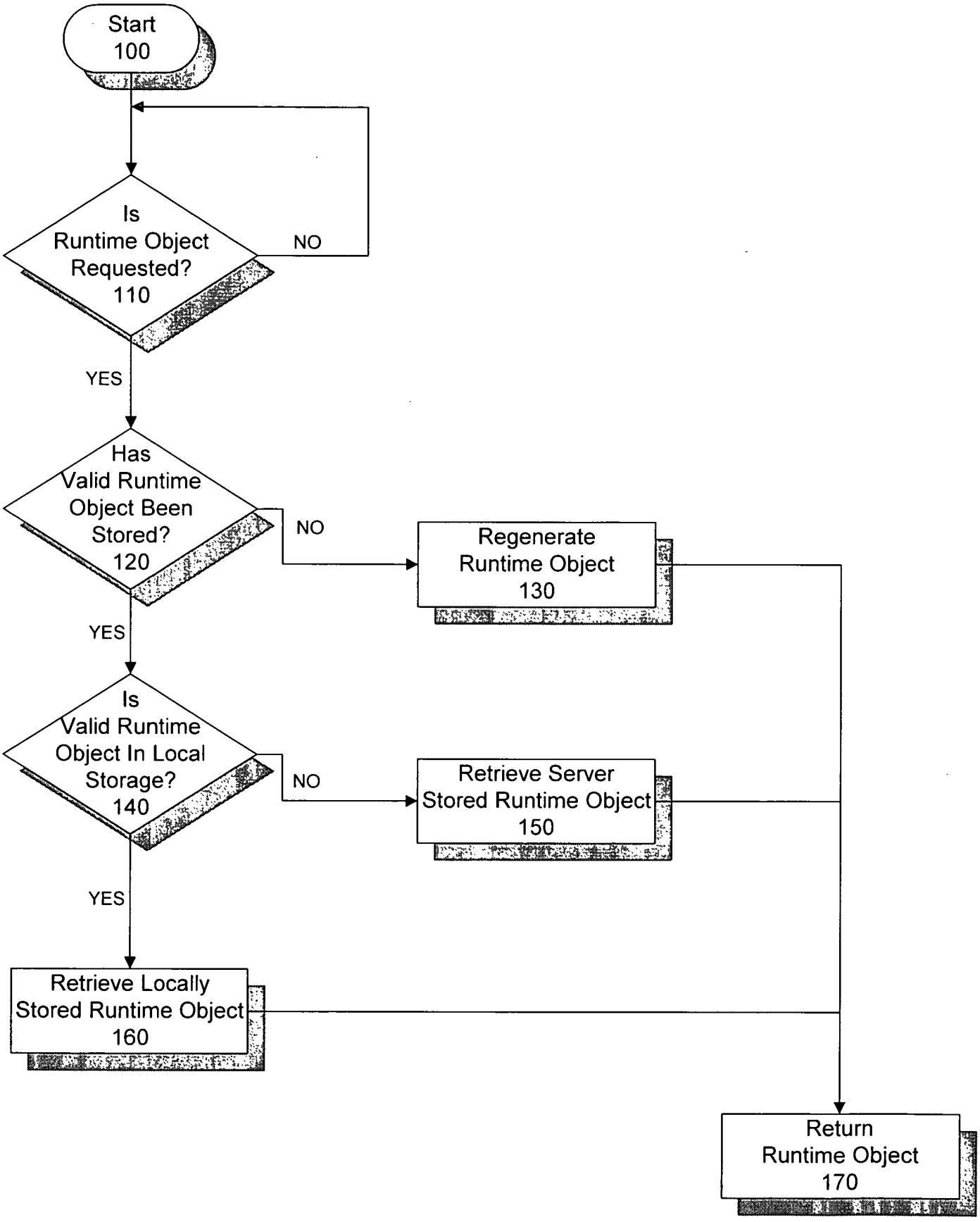
Start
100
Is
Runtime Object
Requested?
110
NO
YES
Has
Valid Runtime
Object Been
Stored?
120
NO
Regenerate
Runtime Object
130
YES
Is
Valid Runtime
Object In Local
Storage?
140
NO
Retrieve Server
Stored Runtime Object
150
YES
Retrieve Locally
Stored Runtime Object
160
Return
Runtime Object
170

FIG. 1

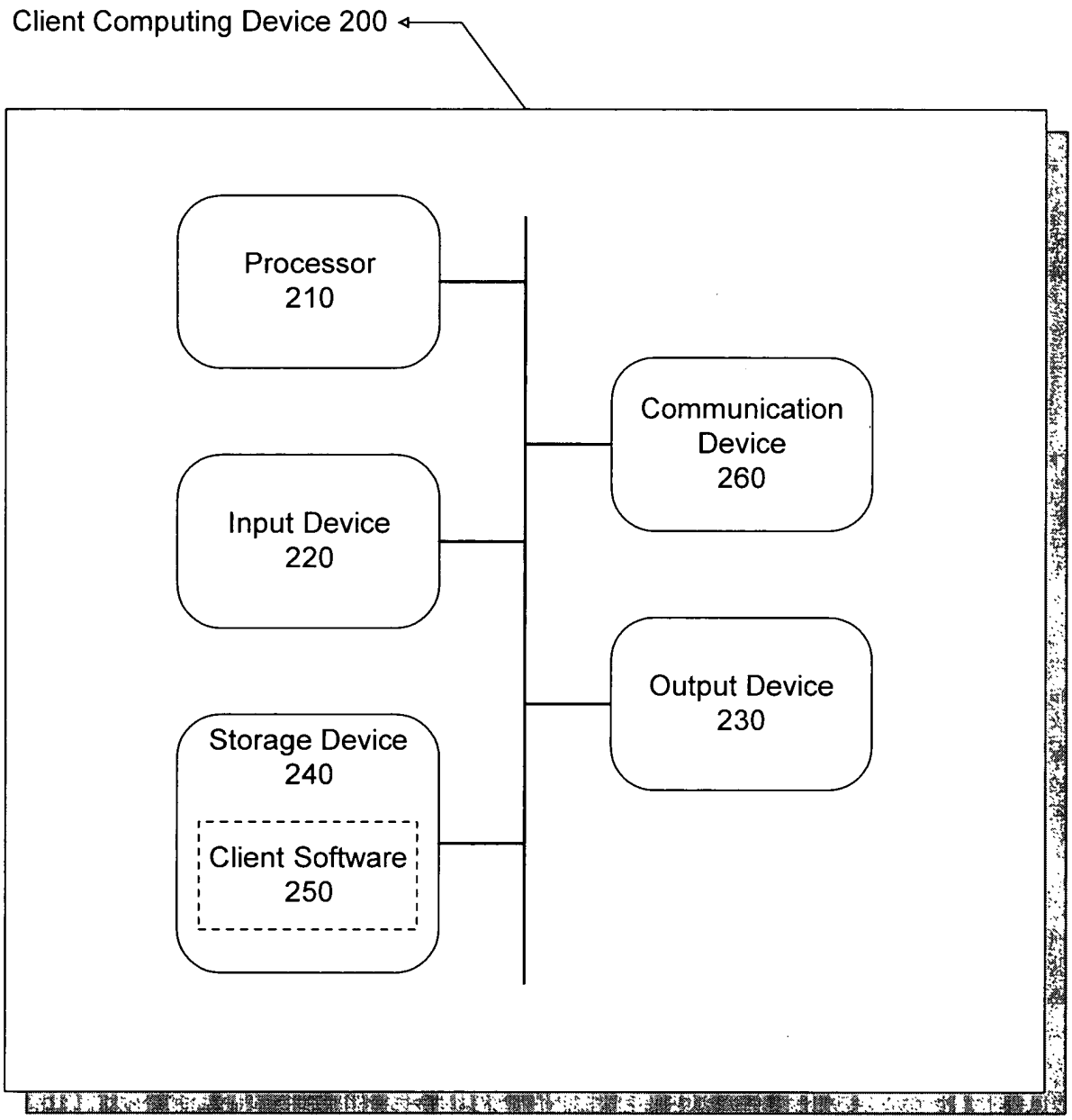
Client Computing Device 200
Processor
210
Input Device
220
Storage Device
240
Client Software
250
Communication
Device
260
Output Device
230

FIG. 2

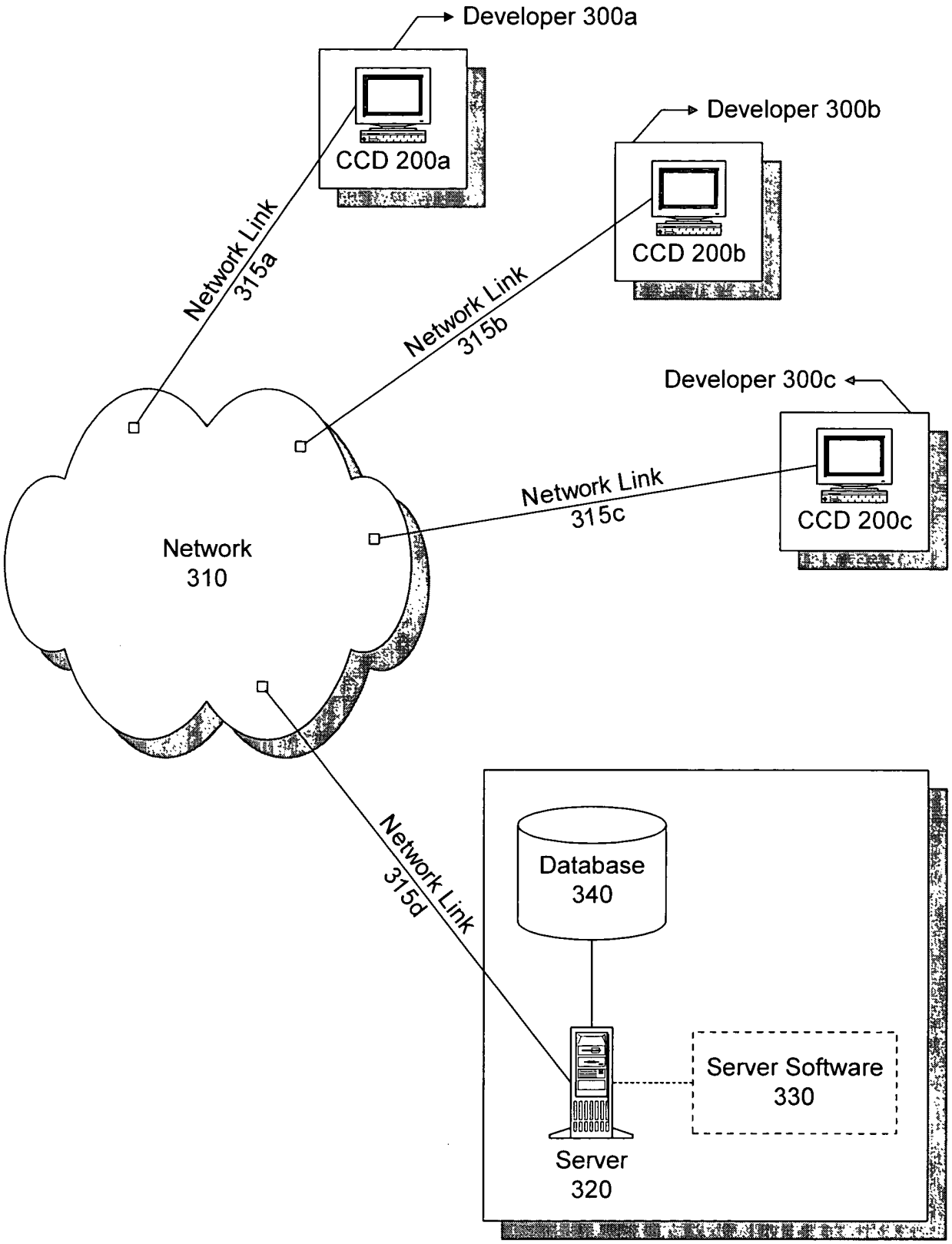
Developer 300a
CCD 200a
Developer 300b
CCD 200b
Network Link
315a
Network Link
315b
Developer 300c
CCD 200c
Network Link
315c
Network
310
Network Link
315d
Database
340
Server Software
330
Server
320

FIG. 3

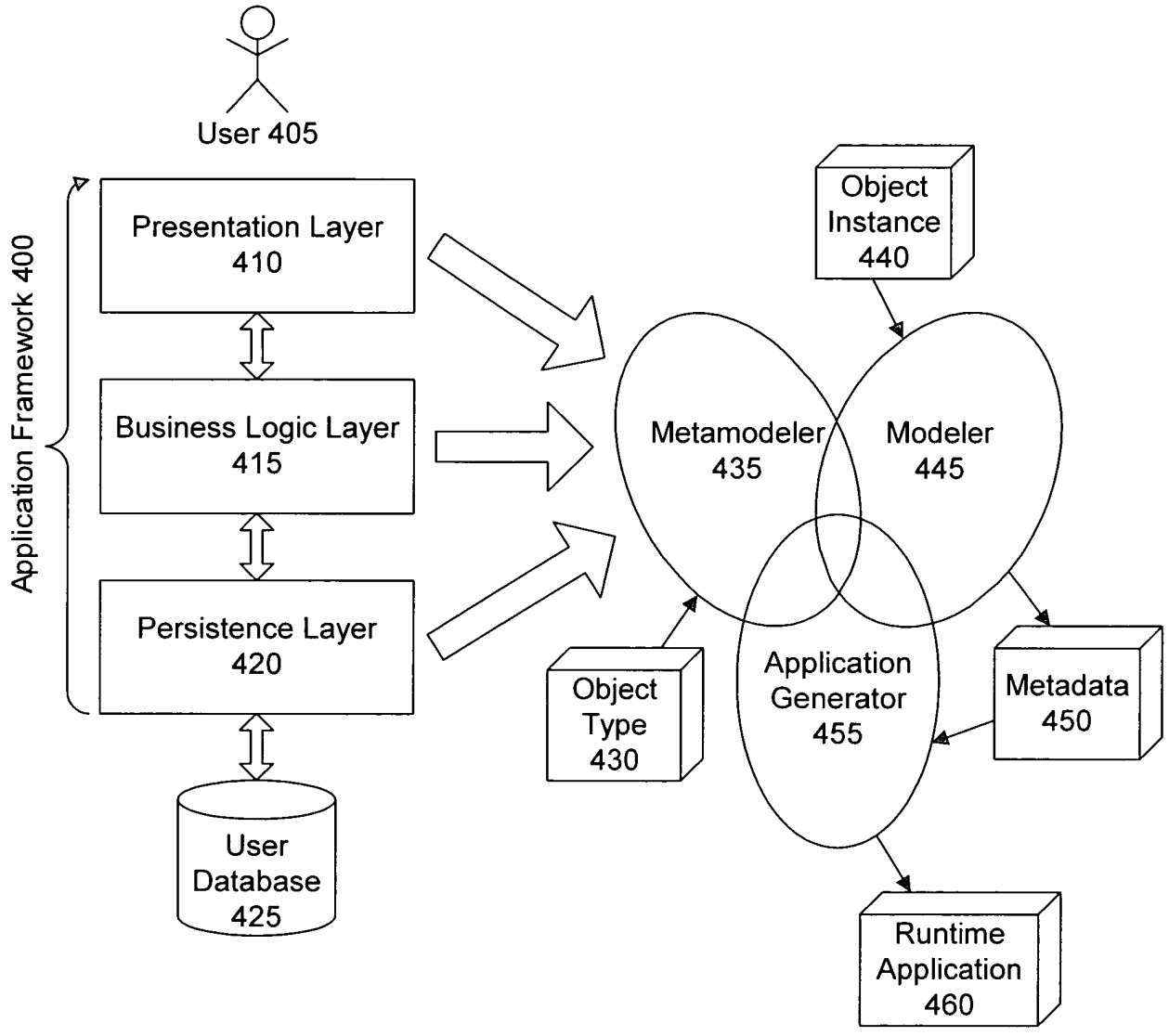
User 405
Application Framework 400
Presentation Layer 410
Business Logic Layer 415
Persistence Layer 420
User Database 425
Object Instance 440
Metamodeler 435
Modeler 445
Object Type 430
Application Generator 455
Metadata 450
Runtime Application 460

FIG. 4

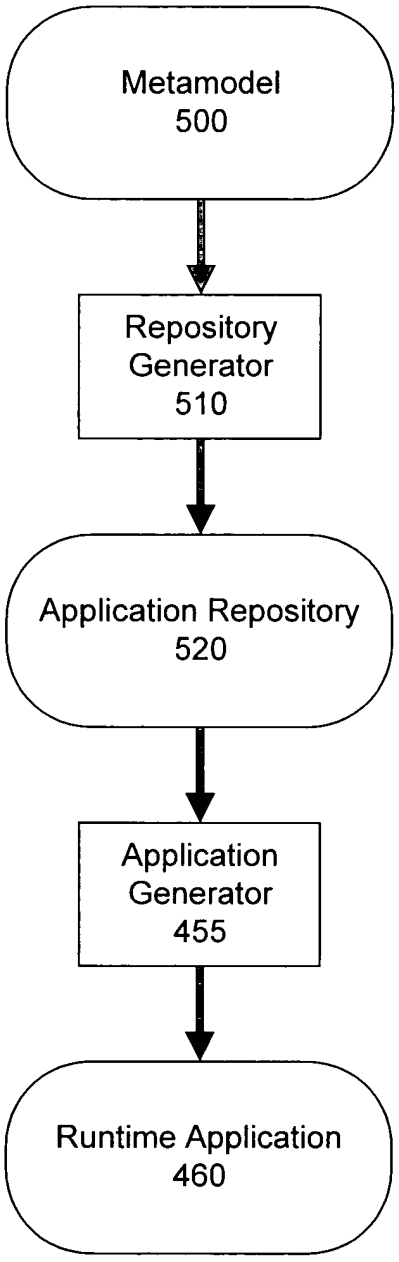
Metamodel
500
Repository
Generator
510
Application Repository
520
Application
Generator
455
Runtime Application
460

FIG. 5

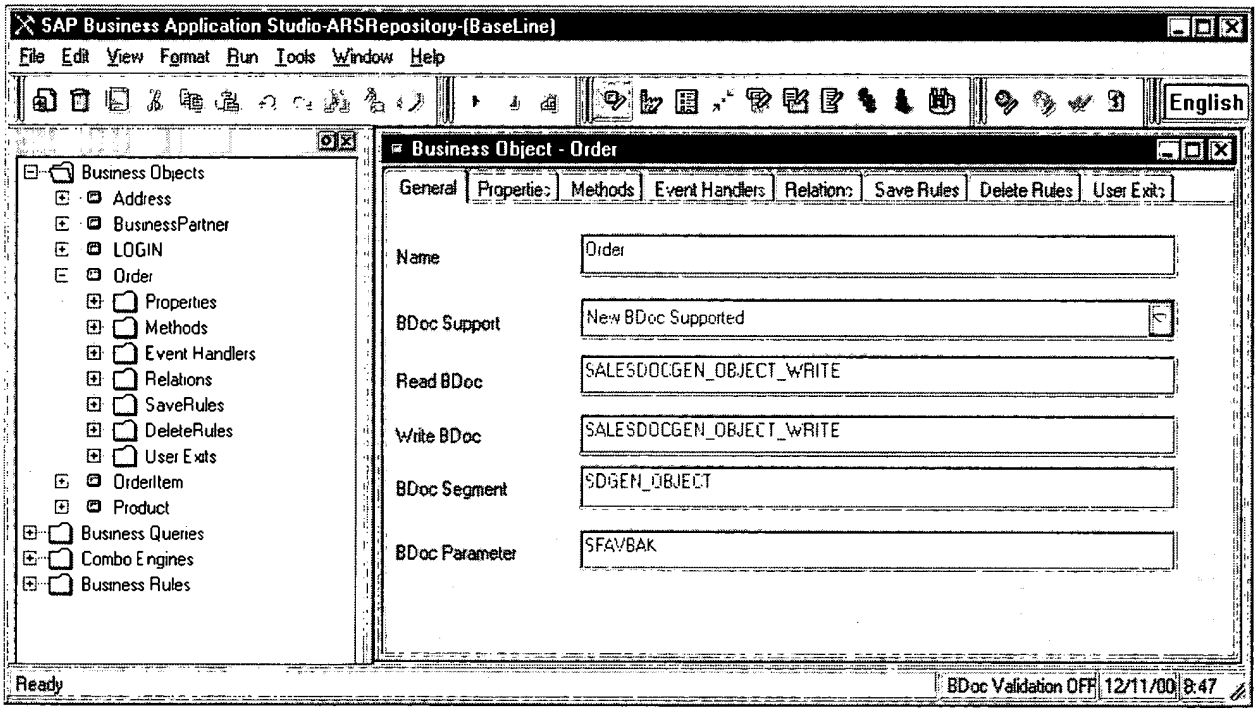
SAP Business Application Studio-ARSRepository-(BaseLine)
File Edit View Format Run Tools Window Help
English
Business Objects
Address
BusinessPartner
LOGIN
Order
Properties
Methods
Event Handlers
Relations
SaveRules
DeleteRules
User Exits
OrderItem
Product
Business Queries
Combo Engines
Business Rules
Business Object - Order
General
Properties
Methods
Event Handlers
Relations
Save Rules
Delete Rules
User Exits
Name
Order
BDoc Support
New BDoc Supported
Read BDoc
SALESDOCGEN_OBJECT_WRITE
Write BDoc
SALESDOCGEN_OBJECT_WRITE
BDoc Segment
SDGEN_OBJECT
BDoc Parameter
SFAVBAK
Ready
BDoc Validation OFF
12/11/00
8:47

FIG. 6

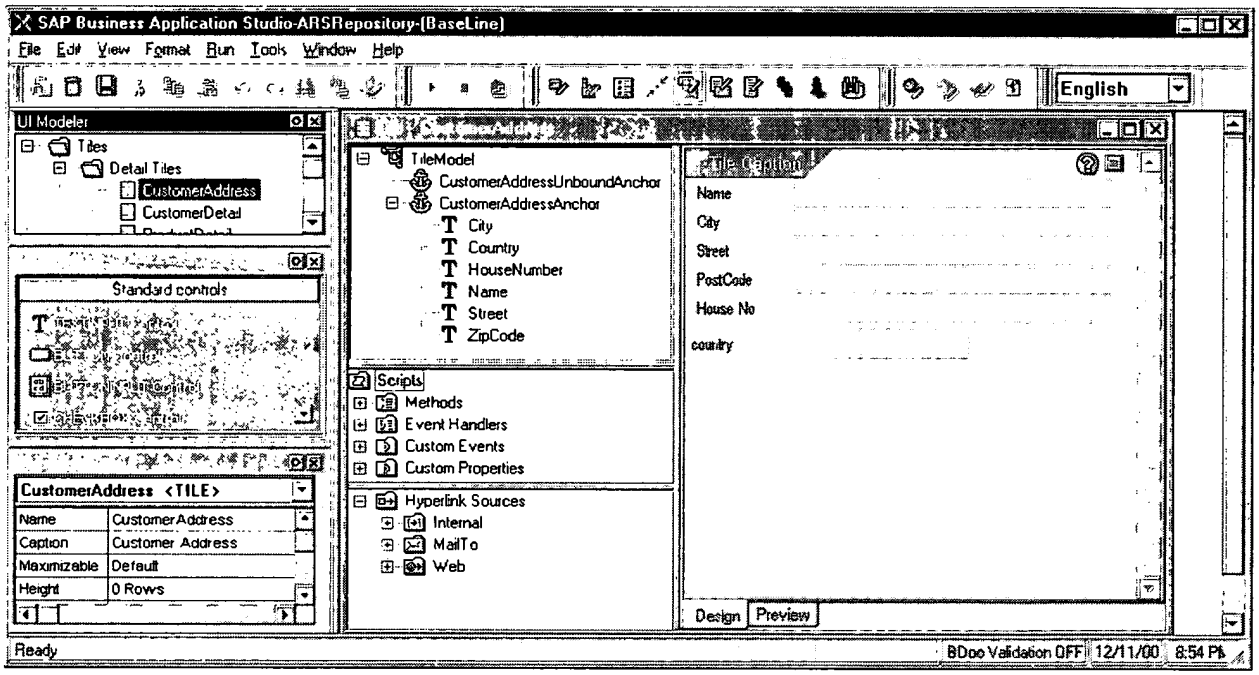
SAP Business Application Studio-ARSRepository-(BaseLine)
File Edit View Format Run Tools Window Help
English
UI Modeler
Tiles
Detail Tiles
CustomerAddress
CustomerDetail
Standard controls
CustomerAddress <TILE>
Name
CustomerAddress
Caption
Customer Address
Maximizable
Default
Height
0 Rows
TileModel
CustomerAddressUnboundAnchor
CustomerAddressAnchor
City
Country
HouseNumber
Name
Street
ZipCode
Scripts
Methods
Event Handlers
Custom Events
Custom Properties
Hyperlink Sources
Internal
MailTo
Web
Name
City
Street
PostCode
House No
country
Design
Preview
Ready
BDoo Validation OFF
12/11/00
8:54 PM

FIG. 7

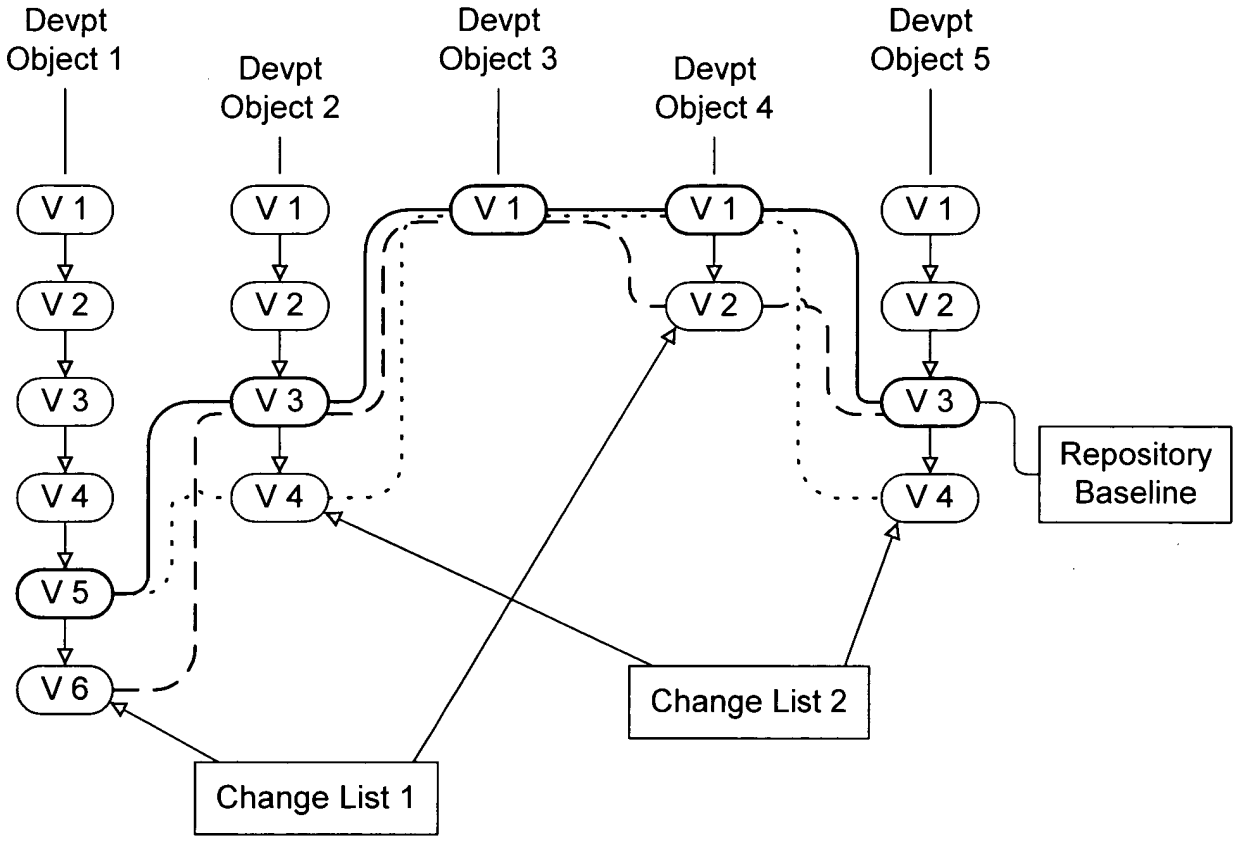
Devpt Object 1
Devpt Object 2
Devpt Object 3
Devpt Object 4
Devpt Object 5
V 1
V 2
V 3
V 4
V 5
V 6
Repository Baseline
Change List 2
Change List 1

FIG. 8

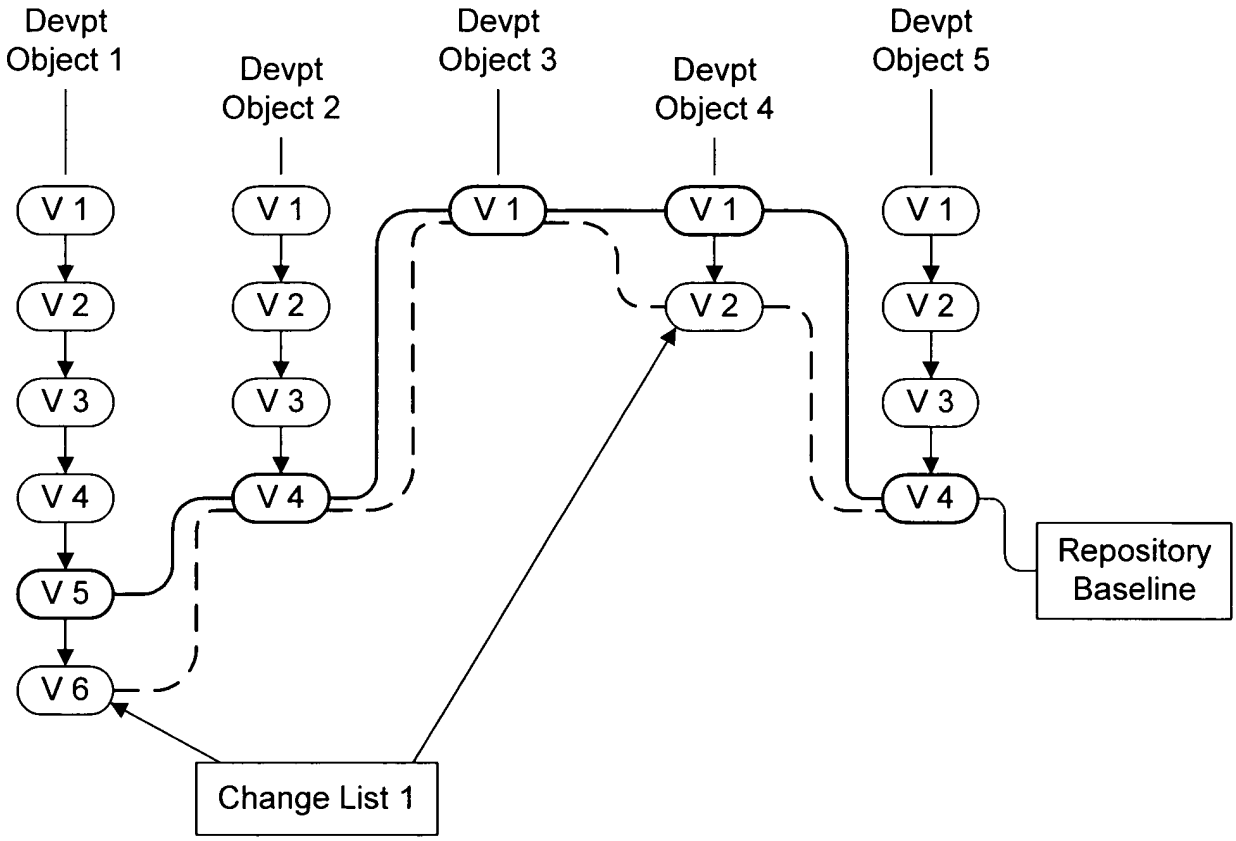
Devpt Object 1
Devpt Object 2
Devpt Object 3
Devpt Object 4
Devpt Object 5
V 1
V 2
V 3
V 4
V 5
V 6
Repository Baseline
Change List 1

FIG. 9

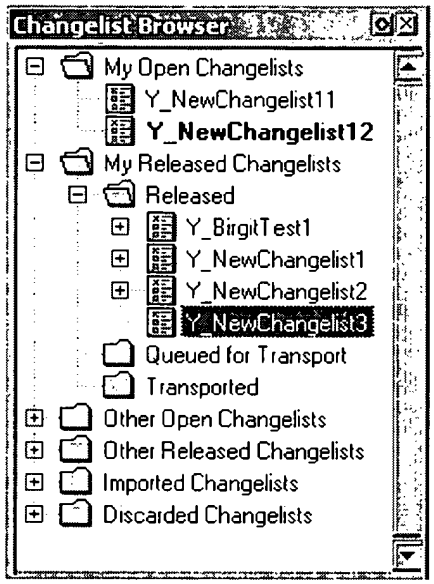
Changelist Browser
My Open Changelists
Y_NewChangelist11
Y_NewChangelist12
My Released Changelists
Released
Y_BirgitTest1
Y_NewChangelist1
Y_NewChangelist2
Y_NewChangelist3
Queued for Transport
Transported
Other Open Changelists
Other Released Changelists
Imported Changelists
Discarded Changelists

FIG. 10

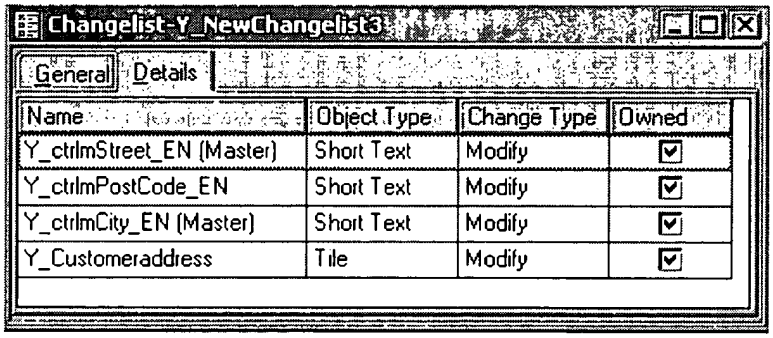
Changelist-Y_NewChangelist3
General
Details
Name
Object Type
Change Type
Owned
Y_ctrlmStreet_EN (Master)
Short Text
Modify
Y_ctrlmPostCode_EN
Short Text
Modify
Y_ctrlmCity_EN (Master)
Short Text
Modify
Y_Customeraddress
Tile
Modify

FIG. 11

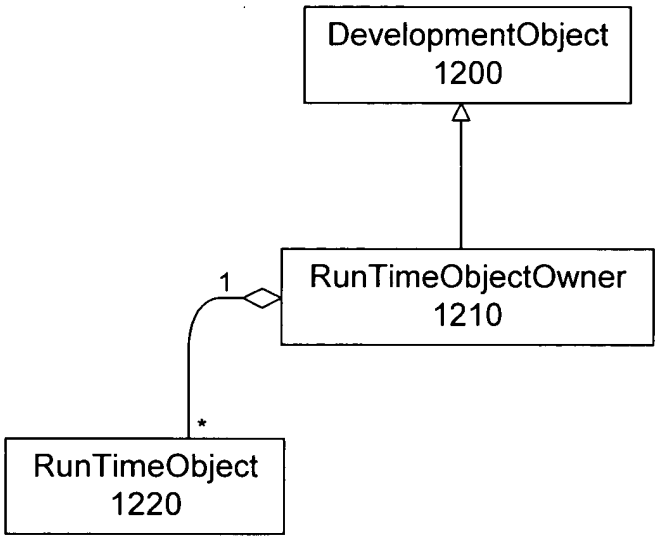
DevelopmentObject
1200
RunTimeObjectOwner
1210
1
*
RunTimeObject
1220

FIG. 12

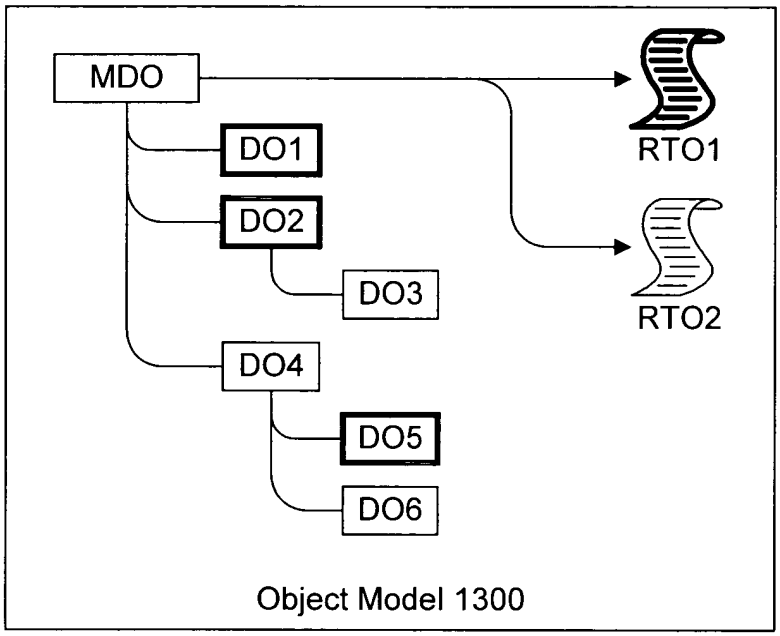

FIG. 13

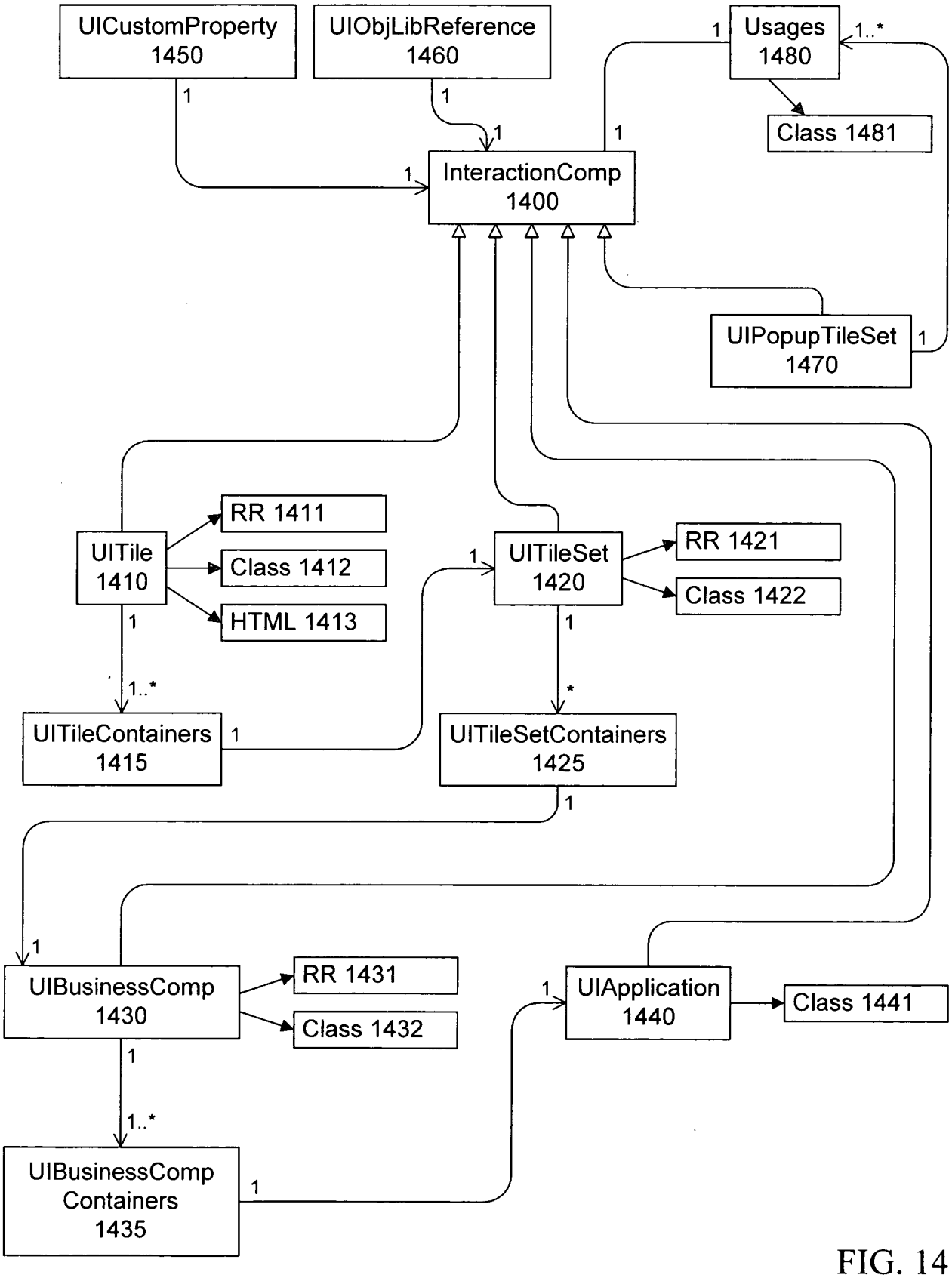
UICustomProperty
1450
UIObjLibReference
1460
Usages
1480
Class 1481
InteractionComp
1400
UIPopupTileSet
1470
UITile
1410
RR 1411
Class 1412
HTML 1413
UITileSet
1420
RR 1421
Class 1422
UITileContainers
1415
UITileSetContainers
1425
UIBusinessComp
1430
RR 1431
Class 1432
UIApplication
1440
Class 1441
UIBusinessComp
Containers
1435

FIG. 14

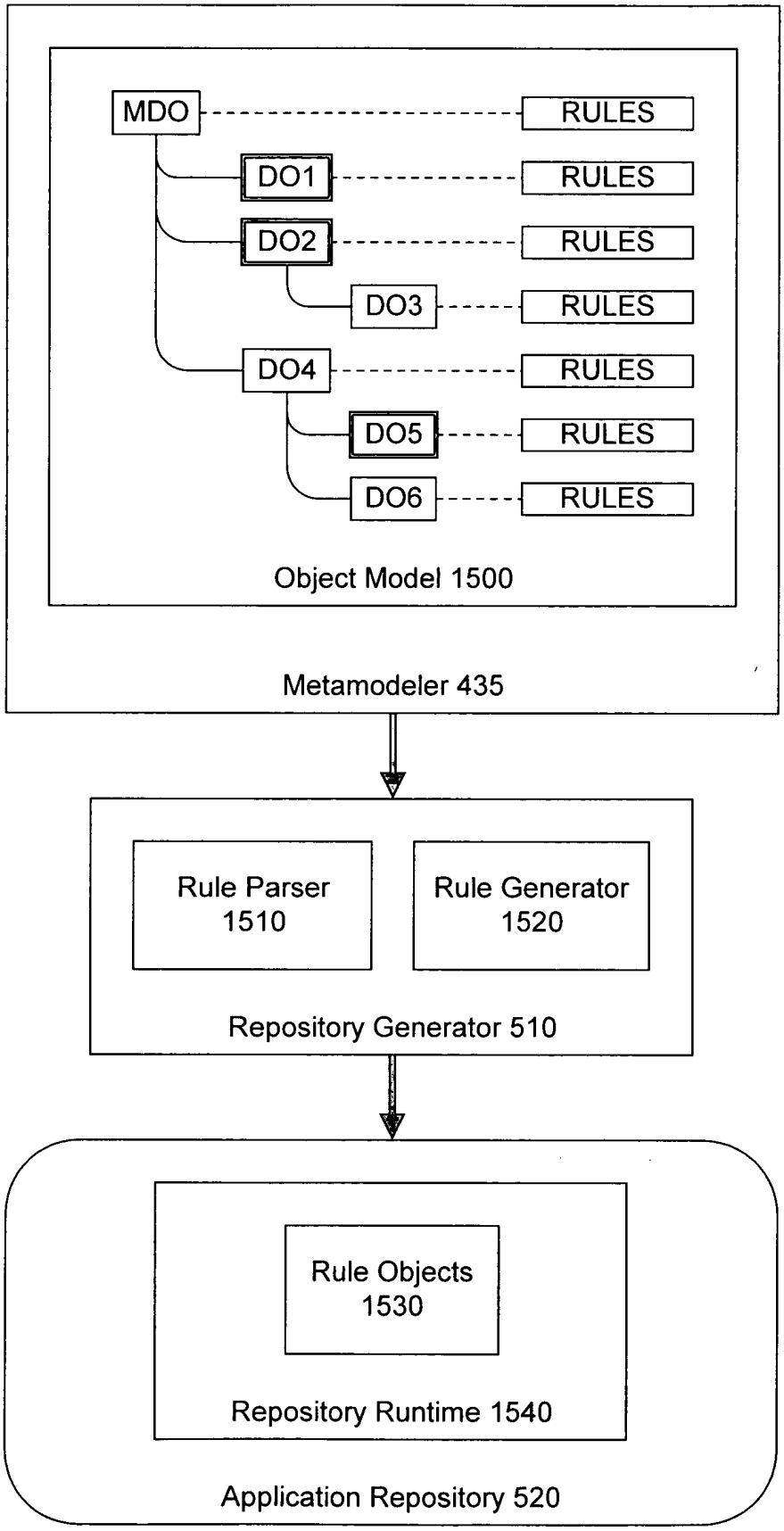
MDO
RULES
DO1
RULES
DO2
RULES
DO3
RULES
DO4
RULES
DO5
RULES
DO6
RULES
Object Model 1500
Metamodeler 435
Rule Parser
1510
Rule Generator
1520
Repository Generator 510
Rule Objects
1530
Repository Runtime 1540
Application Repository 520

FIG. 15

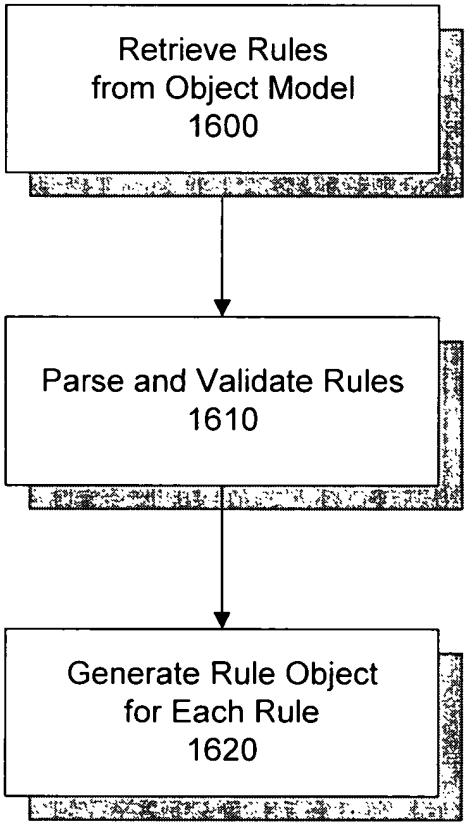
Retrieve Rules
from Object Model
1600
Parse and Validate Rules
1610
Generate Rule Object
for Each Rule
1620

FIG. 16

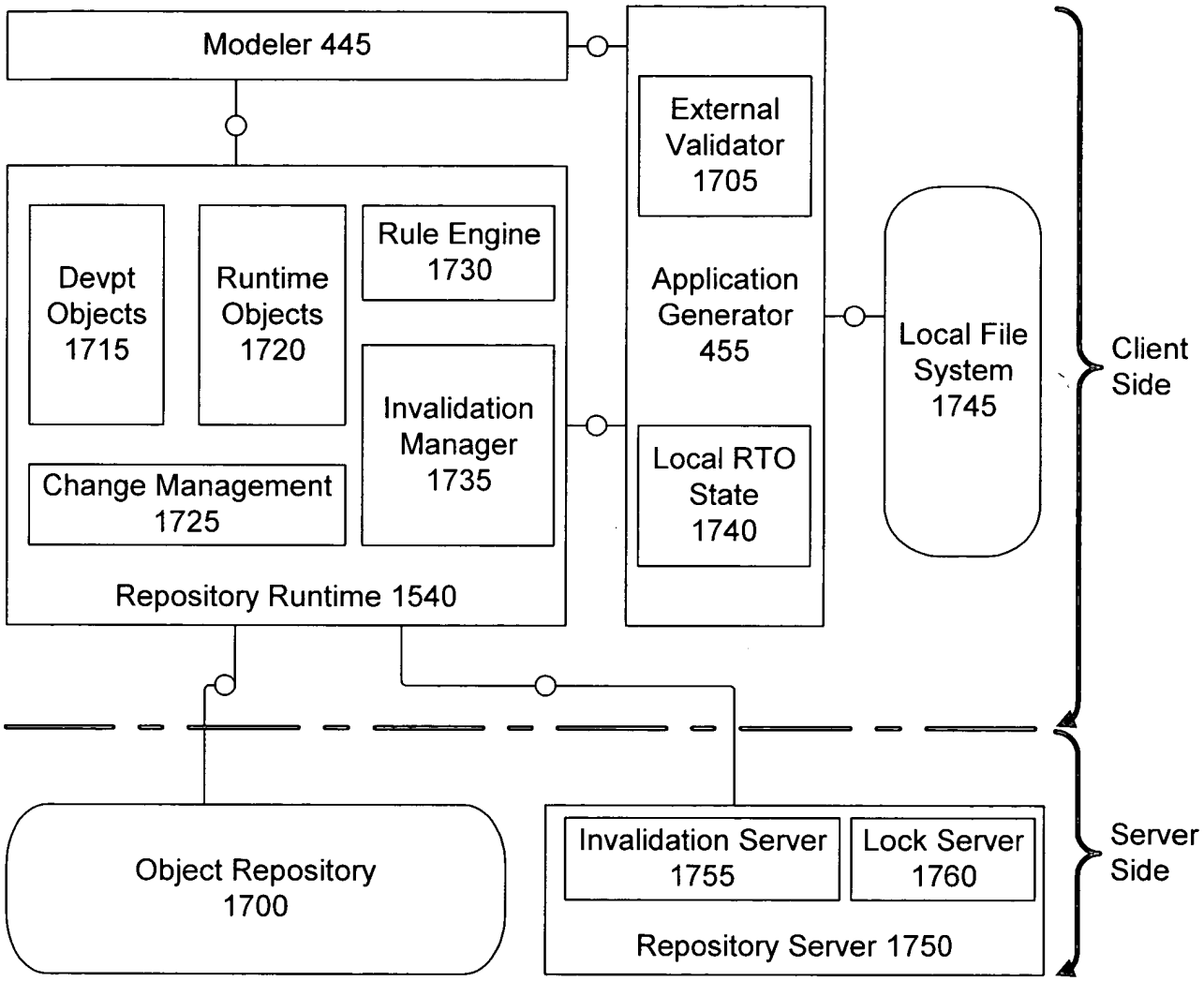
Modeler 445
External Validator 1705
Devpt Objects 1715
Runtime Objects 1720
Rule Engine 1730
Application Generator 455
Local File System 1745
Client Side
Invalidation Manager 1735
Change Management 1725
Local RTO State 1740
Repository Runtime 1540
Object Repository 1700
Invalidation Server 1755
Lock Server 1760
Repository Server 1750
Server Side

FIG. 17

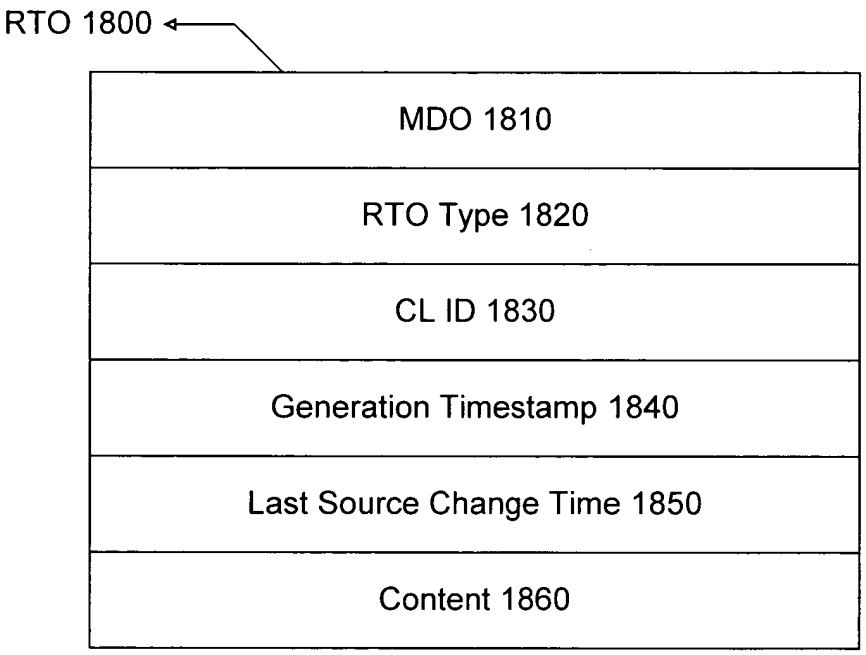
RTO 1800
MDO 1810
RTO Type 1820
CL ID 1830
Generation Timestamp 1840
Last Source Change Time 1850
Content 1860

FIG. 18

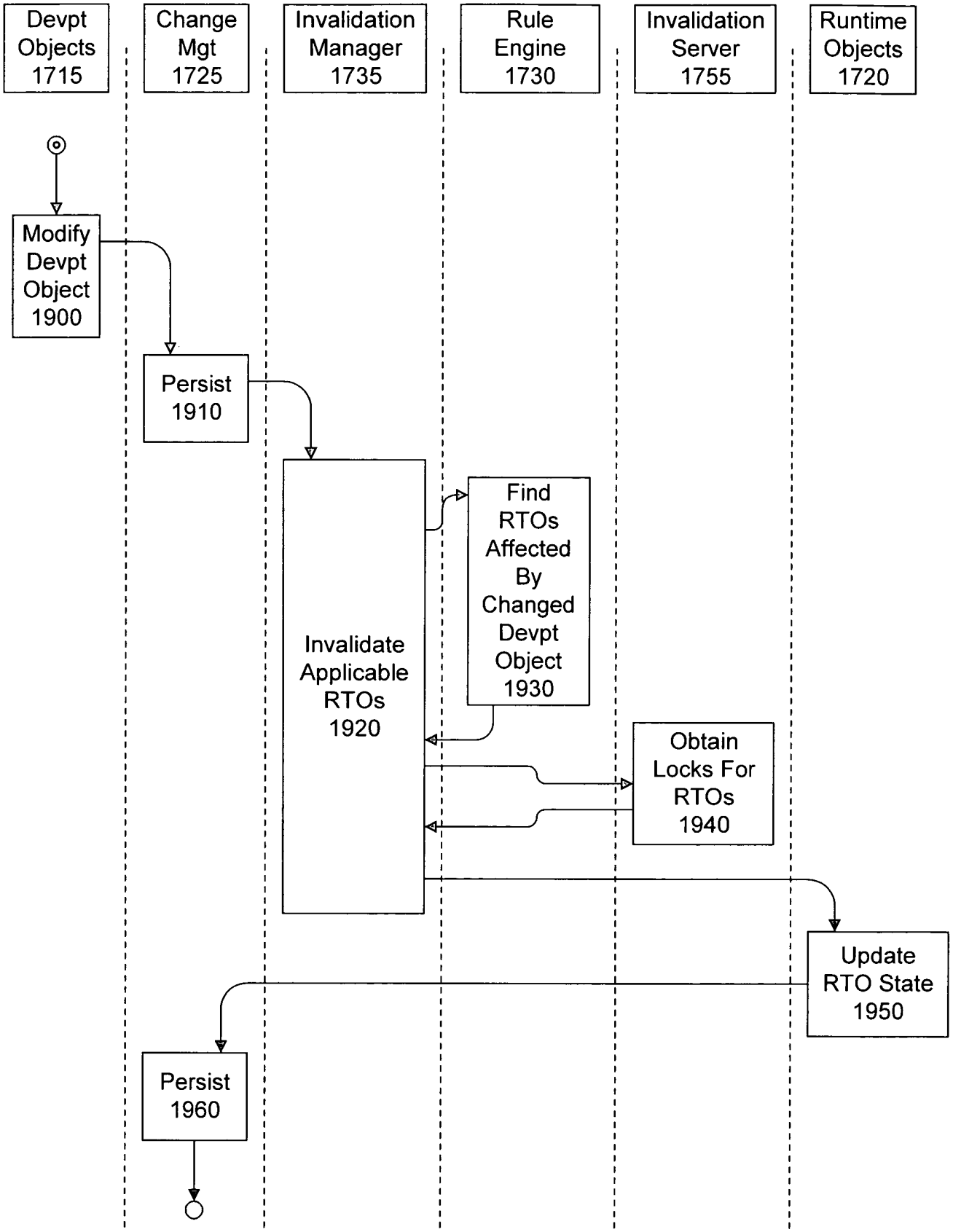
Devpt Objects 1715
Change Mgt 1725
Invalidation Manager 1735
Rule Engine 1730
Invalidation Server 1755
Runtime Objects 1720
Modify Devpt Object 1900
Persist 1910
Invalidate Applicable RTOs 1920
Find RTOs Affected By Changed Devpt Object 1930
Obtain Locks For RTOs 1940
Update RTO State 1950
Persist 1960

FIG. 19

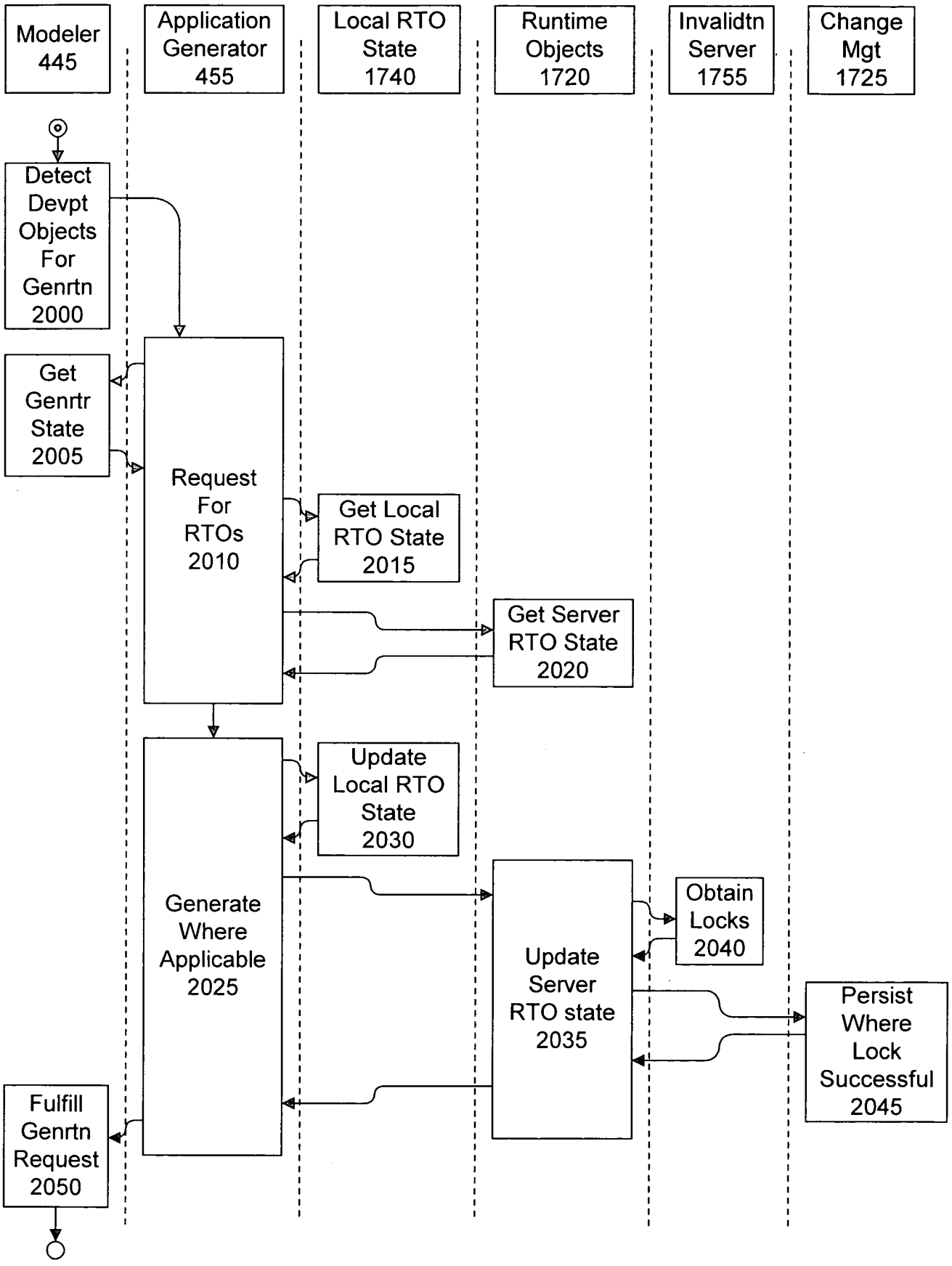
Modeler 445
Application Generator 455
Local RTO State 1740
Runtime Objects 1720
Invalidtn Server 1755
Change Mgt 1725
Detect Devpt Objects For Genrtn 2000
Get Genrtr State 2005
Request For RTOs 2010
Get Local RTO State 2015
Get Server RTO State 2020
Update Local RTO State 2030
Generate Where Applicable 2025
Obtain Locks 2040
Update Server RTO state 2035
Persist Where Lock Successful 2045
Fulfill Genrtn Request 2050

FIG. 20

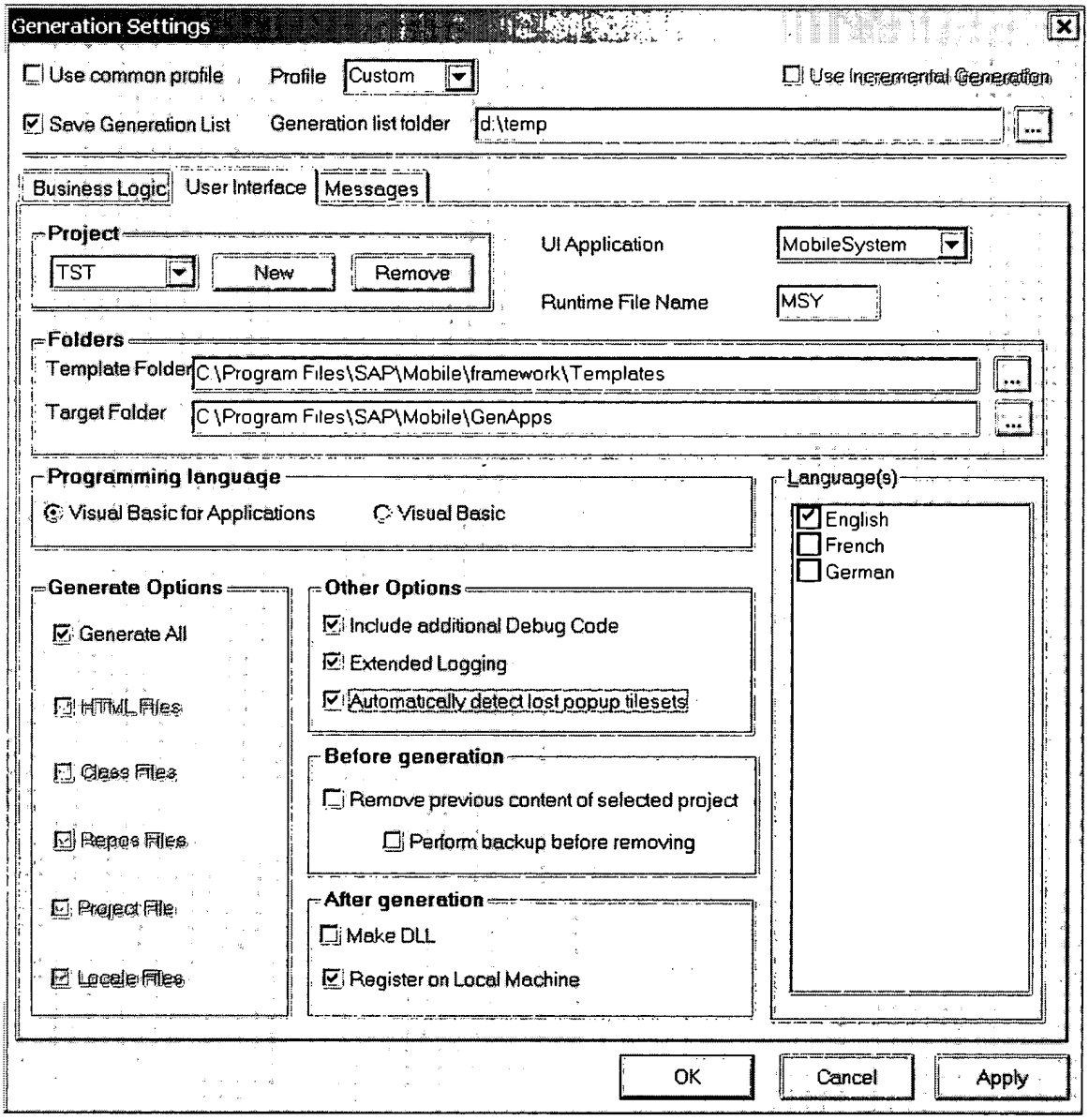
Generation Settings
Use common profile
Profile
Custom
Use Incremental Generation
Save Generation List
Generation list folder
d:\temp
Business Logic
User Interface
Messages
Project
TST
New
Remove
UI Application
MobileSystem
Runtime File Name
MSY
Folders
Template Folder
C:\Program Files\SAP\Mobile\framework\Templates
Target Folder
C:\Program Files\SAP\Mobile\GenApps
Programming language
Visual Basic for Applications
Visual Basic
Language(s)
English
French
German
Generate Options
Generate All
HTML Files
Class Files
Repos Files
Project File
Locale Files
Other Options
Include additional Debug Code
Extended Logging
Automatically detect lost popup tilesets
Before generation
Remove previous content of selected project
Perform backup before removing
After generation
Make DLL
Register on Local Machine
OK
Cancel
Apply

FIG. 21

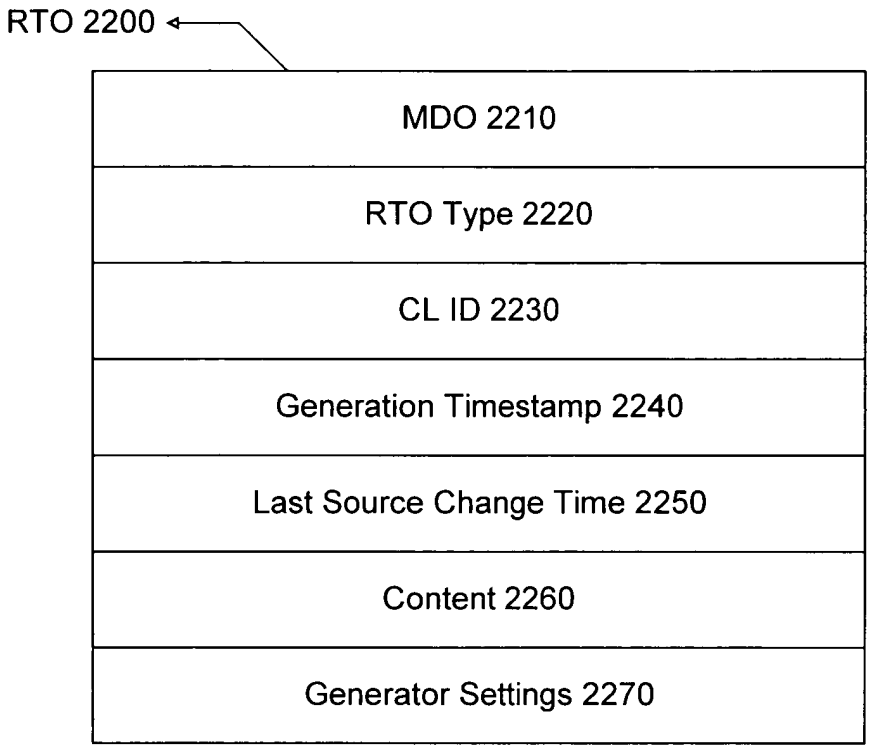
RTO 2200
MDO 2210
RTO Type 2220
CL ID 2230
Generation Timestamp 2240
Last Source Change Time 2250
Content 2260
Generator Settings 2270

FIG. 22

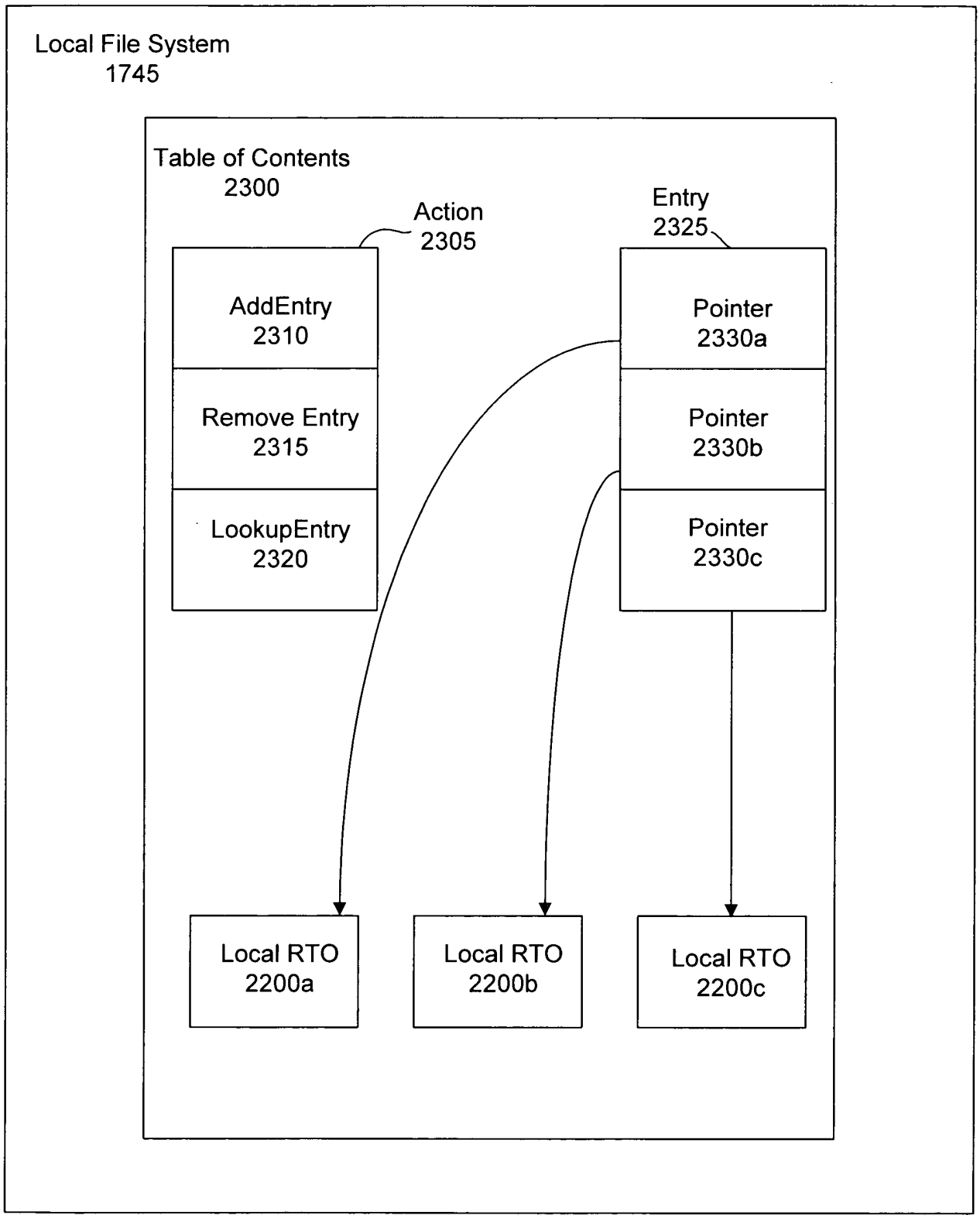
Local File System
1745
Table of Contents
2300
Action
2305
Entry
2325
AddEntry
2310
Remove Entry
2315
LookupEntry
2320
Pointer
2330a
Pointer
2330b
Pointer
2330c
Local RTO
2200a
Local RTO
2200b
Local RTO
2200c

FIG. 23

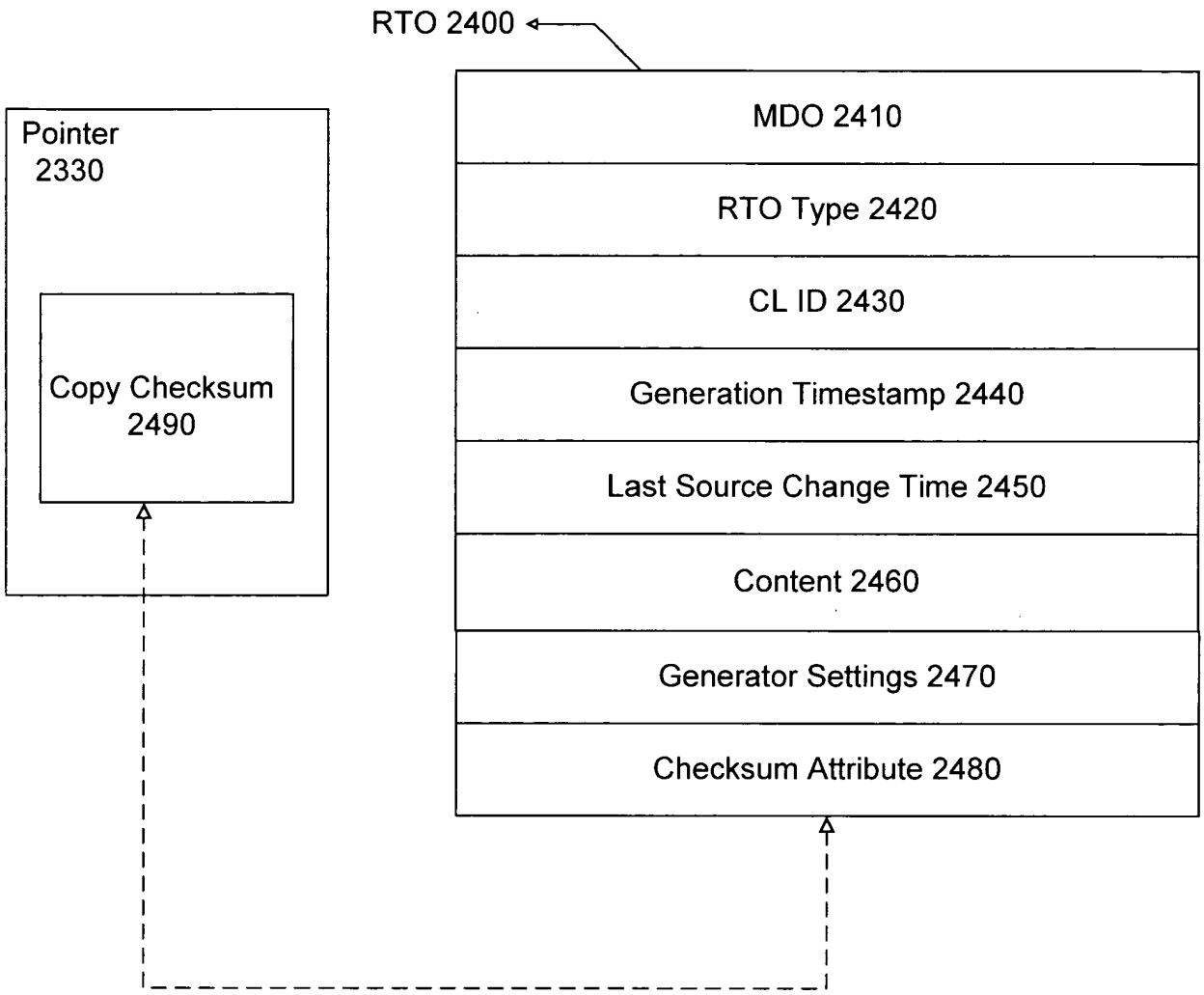
RTO 2400
MDO 2410
RTO Type 2420
CL ID 2430
Generation Timestamp 2440
Last Source Change Time 2450
Content 2460
Generator Settings 2470
Checksum Attribute 2480
Pointer
2330
Copy Checksum
2490

FIG. 24

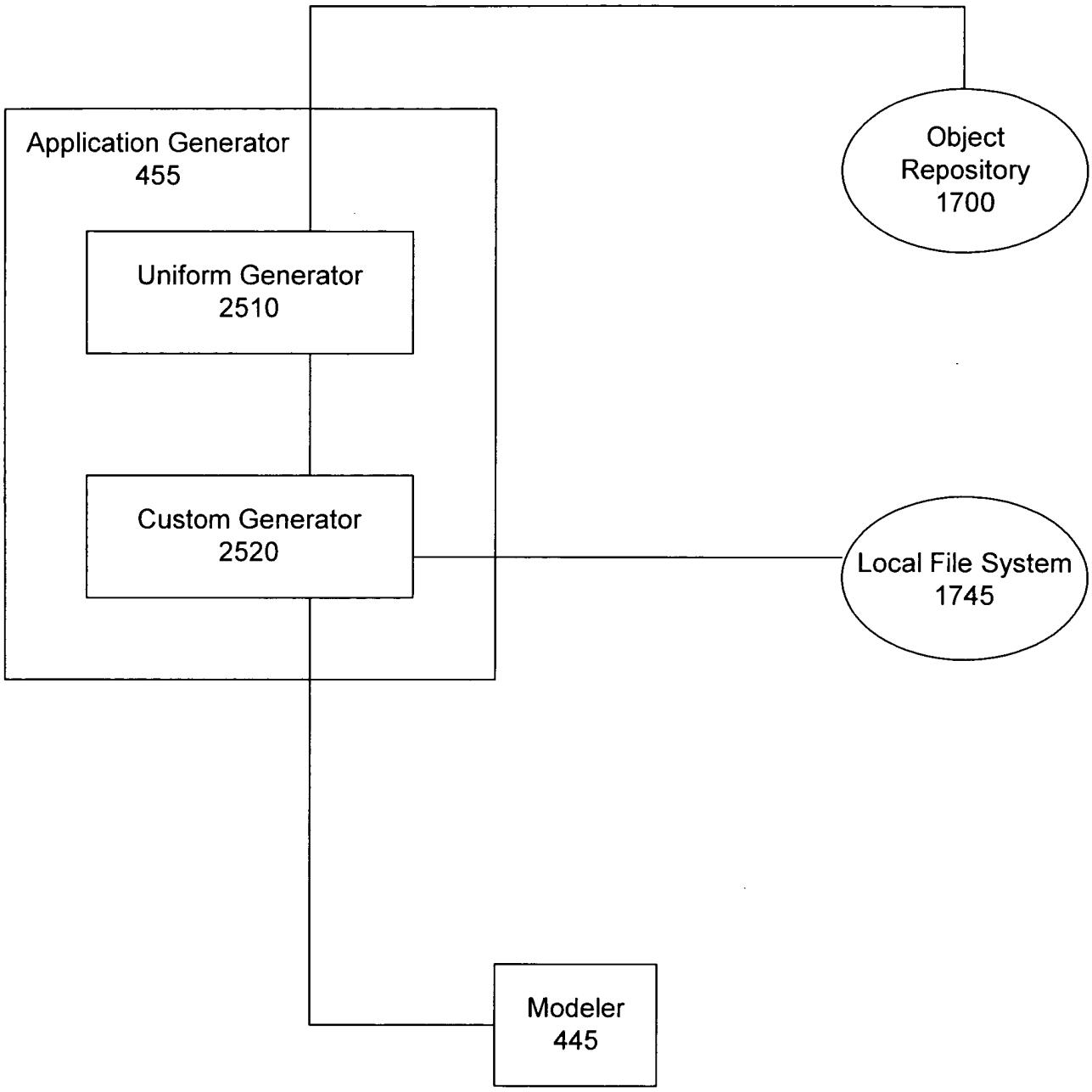
Application Generator
455
Uniform Generator
2510
Custom Generator
2520
Object
Repository
1700
Local File System
1745
Modeler
445

FIG. 25

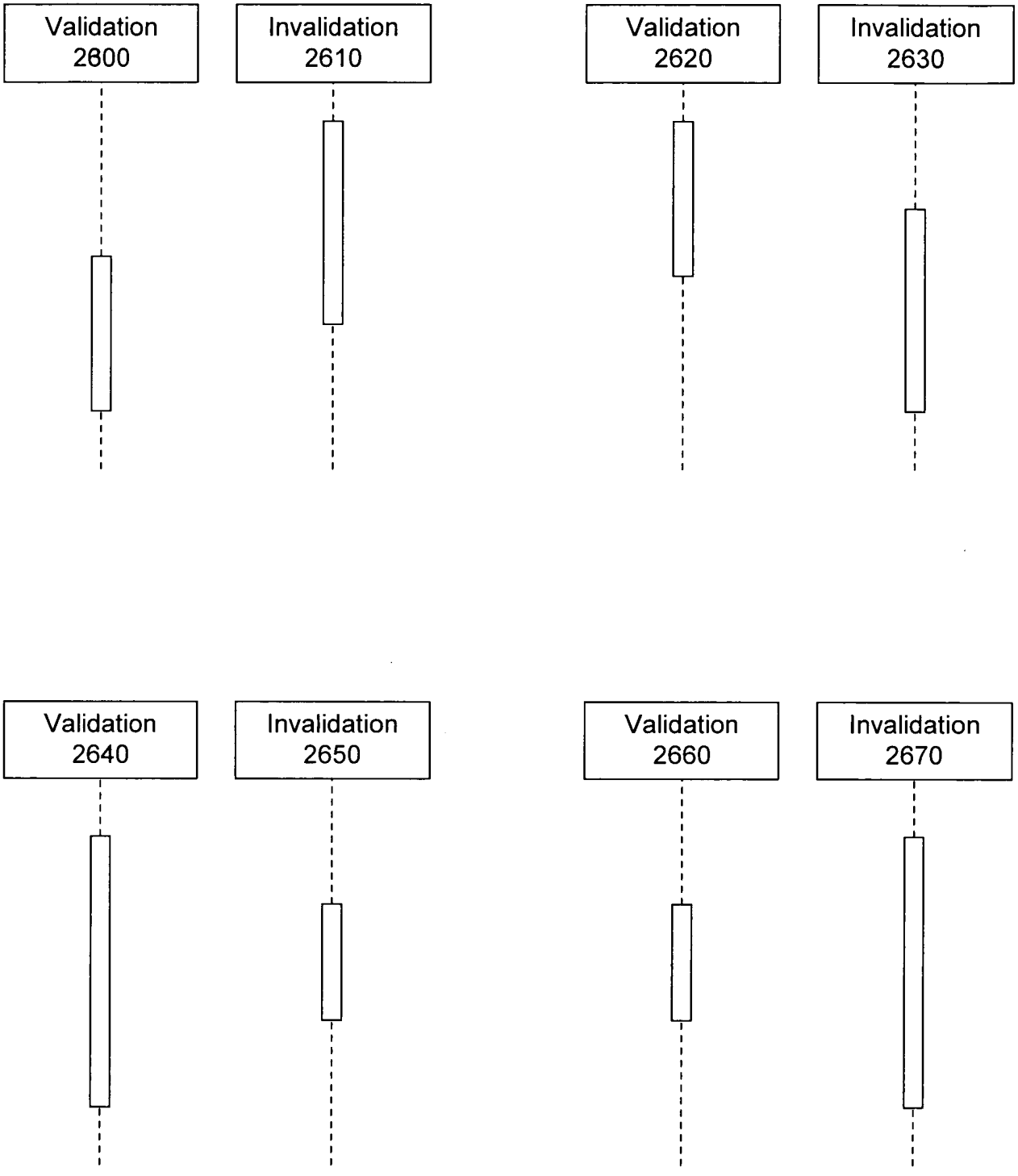
Validation
2600
Invalidation
2610
Validation
2620
Invalidation
2630
Validation
2640
Invalidation
2650
Validation
2660
Invalidation
2670

FIG. 26

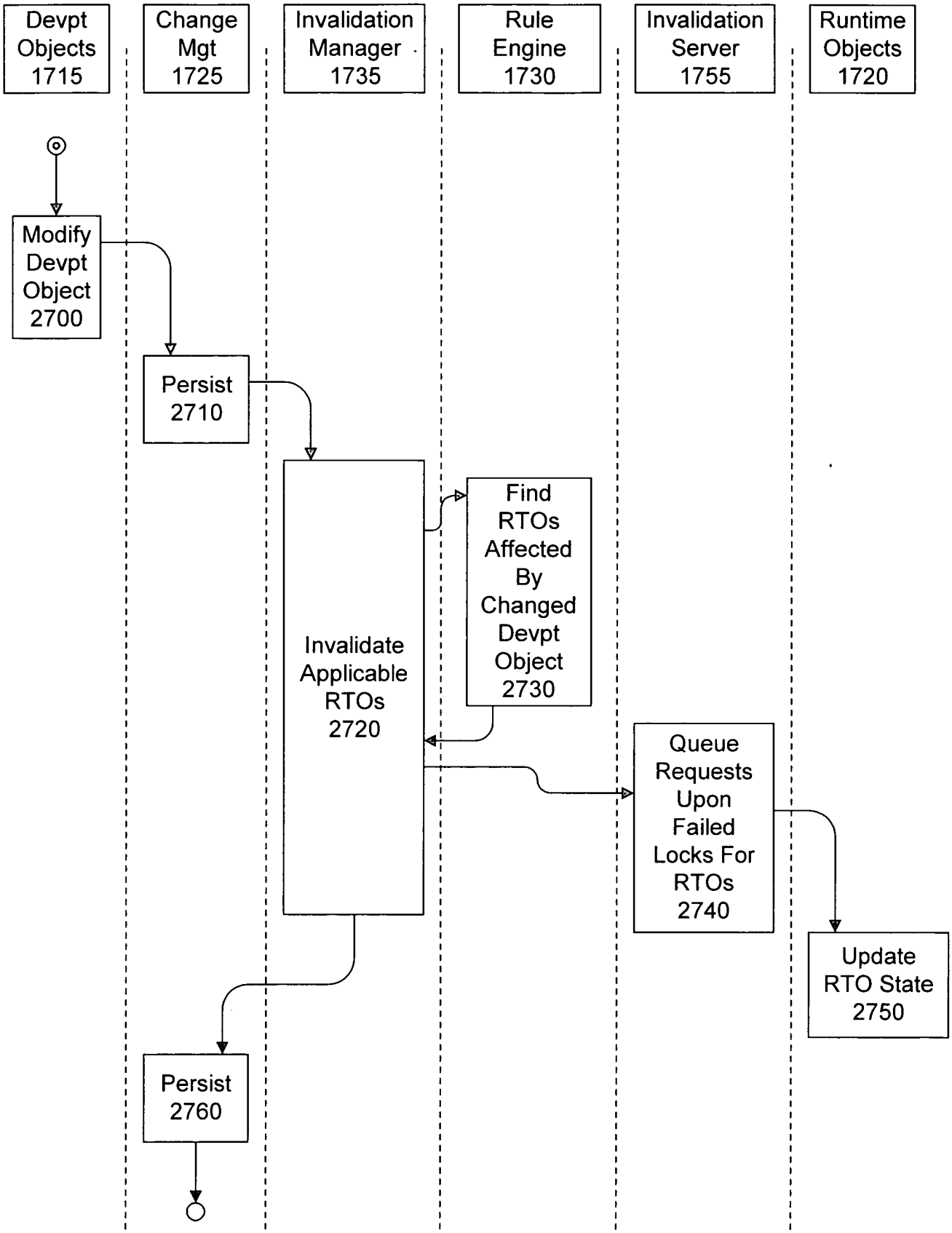
Devpt Objects 1715
Change Mgt 1725
Invalidation Manager 1735
Rule Engine 1730
Invalidation Server 1755
Runtime Objects 1720
Modify Devpt Object 2700
Persist 2710
Invalidate Applicable RTOs 2720
Find RTOs Affected By Changed Devpt Object 2730
Queue Requests Upon Failed Locks For RTOs 2740
Update RTO State 2750
Persist 2760

FIG. 27